# **ÇAĞRI MERT BAKIRCI**

#### **Evolutionary Engineering & Robotics**

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## **EXPERIENCE**

### Founder, Editor-In-Chief

#### Evrim Ağacı

## 2010 - Present

♀ Lubbock, TX & Ankara, Turkey

- Created thousands of popular science content (posts and videos)
- Organized events related to science education and science popularization
- Published two popular science books and one board game

## PhD in Mechanical Engineering

## **Texas Tech University**

**Q** Lubbock, TX

- Worked on a unified Theory of Algorithmic Evolution
- Studied the effects of fitness functions and a priori knowledge injection on algorithm performance
- Built a novel test setup to explore the Reality Gap

#### Lab Researcher

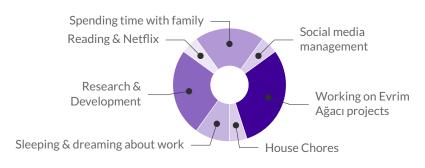
#### **Mechanical Engineering & Biology**

**2009 - 2018** 

Ankara & Lubbock

- Texas Tech University: Worked on evolutionary engineering.
- Carnegie Mellon University: Worked on a water strider robot inspired by Gerridae family
- Denmark Technical University: Worked on self-healing and self-organization properties of starling flocks and mussels
- Middle East Technical University: Worked on fluctuating asymmetry in Apis mellifera (bee) wings
- Middle East Technical University: Worked on the impact of prenatal alcohol consumption on infant mouse visual acuity

# A DAY OF MY LIFE



## LIFE PHILOSOPHY

"Conquer Darkness with Science!"

## MOST PROUD OF



Combining Engineering & Biology

Even if I studied engineering, I combined it with my passion, evolutionary biology.



**TEDx Talks** 

Gave two TEDx Talks about my work: One in METU, Ankara and one in Lubbock, Texas.



Evrim Ağacı's Growth

I built the largest popular science organization in Turkey.



Scientific Enlightenment in Turkey

Founded and have been leading one of the most successful science organizations in history of Turkey.

## STRENGTHS

Hard-working

Empathetic

Persuasive

Motivator & Leader

Bio-Inspired Design

**Evolutionary Optimization** 

**Problem Solving** 

# **LANGUAGES**

Turkish **English** 



# **EDUCATION**

PhD in Mechanical Engineering & Minor in Biology

**Texas Tech University** 

## Sept 2013 - May 2018

B.S. in Mechanical Engineering Middle East Technical University

**Sept 2007 - May 2013** 

## **PUBLICATIONS**

#### Books

- Bakirci, C.M. (ed.) (2017). The Light of Evolution in the Darkness of the Universe: An Interdisciplinary Look at the Mortar of All Modern Sciences. Istanbul, Turkey: Kor Kitap (2 Editions).
- Bakirci, C.M. (2014). The Theory and Mechanisms of Evolution: On the Foundations of Evolution and How It Works. Istanbul, Turkey: Kor Kitap (5 Editions).

## Journal Articles

- (Submitted), C.M. Bakirci, S. Watkins, and B. Aksak (2018). "Fitness Shaping to Limit Fitness Function Complexity and Designer Bias: A Case Study with a Line Following Robot". In: MIT Evolutionary Computation TBD (TBD), TBD.
- (Ongoing), C.M. Bakirci and B. Aksak (2017). "Parameter Sweeps on mu-lambda Selection Scheme for Parameter Selection in Evolutionary Algorithms: A Case Study". In: IEEE Transactions on Evolutionary Computation TBD (TBD), pp. 251–263.

### Contributions

- Bakirci, C.M. (2018). "ANGYRA: A Future Utopia". In: Museum of Earth: Sci-Fi Club, pp. 81–104.
- Chapman, S.J. (2017). "MATLAB Programming with Applications for Engineers". In: CL-Engineering, (Reviewed).
- Bakirci, C. M. (2015). "On the Evolution of Love: How and Why Do We Fall in Love?" In: *Ideas on Love*, pp. 32–46.
- Lenau, T. and T. Hesselberg (2013). "Chapter 13: Biomimetic Self-Organization and Self-Healing". In: Engineered Biomimicry, Elsevier, 2013. FL, USA: Elsevier, 337–362 (Acknowledgement).

## REFERENCES

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### Prof. Dr. Ergi Deniz Özsoy

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